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(71) Applicant (for all designated States except US): NKT A/S  
[DK/DK]; NKT Allé 1, DK-2605 Brøndby (DK).

(72) Inventors; and

(75) Inventors/Applicants (for US only) : RASMUSSEN, Erik  
[DK/DK]; Brogårdsvej 15, DK-2820 Gentofte (DK).  
MARCUSSEN, Erik [DK/DK]; Kjeldgårdsvej 37 A,  
DK-2500 Valby (DK). JØRGENSEN, Michael, Thorbye  
[DK/DK]; Langegade 45, DK-5000 Odense C (DK).

(74) Agent: HOFMAN-BANG & BOUTARD A/S; Adelgade  
15, DK-1304 Copenhagen K (DK).

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(54) Title: A PROCESS OF REMOVING PHOSPHATE FROM WATER, AND A SYSTEM FOR USE IN THE PROCESS

(57) Abstract

The phosphate content in water, in particular waste water, is lowered corresponding to a purification degree (removal of phosphate) of 90-99 % by treating the water after aeration with a solution of an iron(II) compound which through a volume is joined with a solid, stirred of fluidized bed of particles, the phosphate hereby being removed from the water by crystallization on the particles. Use is preferably made of an aqueous solution of iron(II) sulphate or iron(II) chloride and particles of quartz sand having a diameter of 0.1-1.0 mm. The removal of phosphate may be effected without adjusting the hardness, pH-value or bicarbonate content of the water. No gel formation takes place and no chemical sludge is produced and the crystallized phosphate can be reused. Hereby - besides a most satisfactory purification - a significantly improved economy as compared with the known methods is obtained.